

December 20, 2002

Mr. Lawrence DeLaat
Dawn Enterprises, Inc.
9155 Sweet Valley Drive
Valley View, OH 44125

Dear Mr. DeLaat:

Re: Exempt Construction and Operation Status,
087-16813-00054

The application from Dawn Enterprises, Inc., received on November 25, 2002, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following emission unit, to be located at 1340 Industrial Drive, Lagrange, Indiana, is classified as exempt from air pollution permit requirements:

- (a) One (1) paint booth for priming rear deck spoilers for automobiles, with a maximum capacity of spraying 1.75 quarts per hour of a primer/surfacer.

The following conditions shall be applicable:

- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
- (2) Pursuant to 40 CFR 52 Subpart P, the particulate matter (PM) from the painting operation shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

This exemption is the first air approval issued to this source.

December 20, 2002

Dawn Enterprises, Inc.
Lagrange, Indiana

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Exemption No. 087-16813-00054

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

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cc: File - Lagrange County
Lagrange County Health Department
Northern Regional Office
Air Compliance - Doyle Houser
Permit Tracking
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name: Dawn Enterprises, Inc.
Source Location: 9155 Sweet Valley Drive, Valley View, OH 44125
County: Lagrange
SIC Code: 3711
Operation Permit No.: 087-16813-00054
Permit Reviewer: Madhurima D. Moulik

The Office of Air Quality (OAQ) has reviewed an application from Dawn Enterprises, Inc. relating to the construction and operation of an automobile spoiler painting operation.

Emission Units and Pollution Control Equipment

The source consists of the following emission units and pollution control devices:

- (a) One (1) paint booth for priming rear deck spoilers for automobiles, with a maximum capacity of spraying 1.75 quarts per hour of a primer/surfacer.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on November 25, 2002.

Emission Calculations

Potential to Emit of VOCs:

Primer (as applied) contains:

4 parts DP20 primer (with 3.5 lb of VOC/gal of material (less water and exempt solvent))

1 part Reducer (with 7.4 lb/gal of material (less water and exempt solvents))

1 part Hardener (with 5.3 lb/gal of material (less water and exempt solvents))

Therefore, VOC content (as applied) = $(4 \times 3.5 + 7.4 + 5.3) / 6 = 4.5$ lb/gallon of primer (as applied)

Material sprayed in 1 hour = 1.75 quarts = $1.75 / 4$ gal = 0.4375 gallons

PTE of VOC = 0.4375 gallons/hr x 4.5 lb/gal = 2.0 lb per hour = 8.6 tons per year.

Potential to Emit of PM/PM-10

DP20 primer had 67% solids with material density of 12.62 lb/gal, usage = $0.4375 \times 4/6$ gallons per hr = 0.29 gal/hr

Reducer has 0% solids

Hardener has 34% solids with material density of 8.0 lb/gal, usage = 0.07 gal/hr

At 75% transfer efficiency, PM emissions = gal/hr x lb/gal x fraction of solids x $(1 - 0.75) \times 8760 / 2000$ tpy

$$= (0.29 \times 12.62 \times 0.67 \times 0.25 + 0.07 \times 8.0 \times 0.34 \times 0.25) \times 4.38 = 2.9 \text{ tpy}$$

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

| Pollutant | Potential To Emit (tons/year) |
|-----------------|-------------------------------|
| PM | 2.9 |
| PM-10 | 2.9 |
| SO ₂ | - |
| VOC | 8.6 |
| CO | - |
| NO _x | - |

| HAP's | Potential To Emit (tons/year) |
|-------------|-------------------------------|
| Single HAPs | <10 |
| | |
| TOTAL | <25 |

1. The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3.
2. The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3.

County Attainment Status

The source is located in Lagrange County.

| Pollutant | Status |
|-----------------|------------|
| PM-10 | attainment |
| SO ₂ | attainment |
| NO ₂ | attainment |
| Ozone | attainment |
| CO | attainment |
| Lead | attainment |

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Lagrange County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Lagrange County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) This source is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.390, Subpart MM), since the source is not an automobile or light-duty truck assembly plant.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Lagrange County and the potential to emit of all criteria pollutants is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of the painting booth will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

According to 326 IAC 6-3-1(b)(15), the painting operation at this source, which uses less than 5 gallons per day of coating, is exempt from the requirements of this rule.

Pursuant to 40 CFR 52 Subpart P, the particulate matter (PM) from the painting operation shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

326 IAC 8-1-6 (VOC: General Reduction Requirements for New Facilities)

The potential VOC emission from this fiberglass painting operation is less than 25 tons per year. Therefore, 326 IAC 8-1-6 does not apply)

326 IAC 8-2-9 (Miscellaneous Metal Coating)

The painting facility at the source is not used for painting metal parts, therefore, 326 IAC 8-2-9 does not apply.

Conclusion

The construction and operation of automobile rear deck spoiler painting unit shall be subject to the conditions of the attached proposed Exemption No. 087-16813-00054.